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EXAMINER	
SALTARELLI, DOMINIC D	

ART UNIT	PAPER NUMBER
2421	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/748,717	PANGRAC ET AL.	
	Examiner	Art Unit	
	DOMINIC D. SALTARELLI	2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *79-96* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *79-96* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 29, 2009 has been entered.

Response to Arguments

2. Applicant's arguments filed February 29, 2009 have been fully considered but they are not persuasive.

First, applicant argues that there is no motivation to modify McNamara in view of Darcie in the manner proposed, alleging that there is no merit in stating that sharing bandwidth results in contention problems, and that the examiner made a “mere conclusory statement” when addressing said contention problems (applicant’s remarks, page 6).

In response, McNamara very explicitly teaches that if users share a common bandwidth channel, collisions will occur. In fact, McNamara goes into some detail regarding the use of CSMA/CD as the contention mechanism by which said collisions are managed should that particular embodiment of McNamara be implemented (see col. 5, lines 40-54 of McNamara). CSMA/CD

deals with collisions by alerting transmitters that a collision has occurred and simply retransmitting at a random interval, operating on the premise that with enough retransmissions, eventually all messages will get through. Clearly, then, one is well aware of contention issues when presented with the McNamara disclosure. Further, the teachings found in Darcie are specifically aimed at maximizing bandwidth utilization while avoiding contention problems. This is not a ‘conclusory statement’ but a verbatim quote from Darcie himself (Darcie, col. 1 line 65 - col. 2 line 4).

Second, applicant argues that modifying McNamara in view of Darcie does not result in the claimed limitation, arguing that the 'unshared bandwidth' limitation of claim 79 is not analogous to the teachings of Darcie. The basis for this argument is to take a fragment of the stated motivation and willfully leave out the entire statement made by the examiner, arguing from the position that maximizing use of an available frequency spectrum means sharing channels, as opposed to applicant’s claimed invention of less than maximal use which assigns channels for exclusive use to individuals.

As stated above, Darcie explicitly teaches maximizing bandwidth utilization **while avoiding contention problems**. Applicant's argument here, as it stands, has no recognizable bearing on the actual rejection proposed by the examiner.

Lastly, applicant argues that modifying McNamara to include the ‘unshared bandwidth’ limitation would defeat McNamara’s system, stating that McNamara actually requires two communicating subscribers to be on the same channel.

In response, this is an entirely optional embodiment of McNamara, who in reality teaches a system that generically enables communications between nodes of a cable network (McNamara, col. 1, lines 53-57). More often than not, these nodes, rather than being two subscribers wishing to communicate with each other, are in fact a subscriber and a service provider (McNamara, ‘server nodes’, col. 2, lines 52-56).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 79-81, 83, 84, 86-88, and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara et al. (4,533,948, of record) [McNamara] in view of Binns et al. (5,329,308, of record) [Binns], Darcie (4,701,904, of record), and Hoarty et al. (5,526,034, of record) [Hoarty].

Regarding claim 79, McNamara discloses a method of distributing information (col. 3 line 64 – col. 4 line 21) by a point of distribution (fig. 3, headend 10) to subscribers (fig. 3, subscriber nodes) via a communication network (fig. 3, network 28), comprising:

Dividing a television broadcast spectrum into a plurality of subscriber channels (col. 5, lines 21-26), each subscriber channels having a deterministic bandwidth (each channel is set to be capable of a 128 Kb/s transmission rate);

Allocating bandwidth to each of a plurality of subscriber destinations (col. 5, lines 32-39);

Assigning each of the subscriber destinations to a subscriber channel (col. 5, lines 32-39);

Forwarding source information to each subscriber destination based on assigned subscriber channels (source nodes send information to user nodes through the headend, col. 4 line 60 – col. 5 line 20, using the assigned channels, col. 7 line 62 – col. 8 line 24);

Modulating forwarded source information for each subscriber channel (FSK modulator 16 in headend 10, col. 4, lines 30-54);

Combining modulated forwarded source information from each subscriber channel into a combined signal (there are at least 80 disclosed FSK data channels in the forward and return spectrum space handled by the headend, col. 5, lines 21-31, thus it is a combined signal of at least 80 channels which is broadcast from the headend); and

Distributing the combined signal to the plurality of subscriber destinations via the communication network (col. 4, lines 9-21),

Allocating a first portion of the television broadcast spectrum to downstream subscriber channels (fig. 1, frequency band 4, col. 3, lines 57-63) and a second portion of the remaining portion of the television broadcast spectrum is allocated to upstream subscriber channels (fig. 1, frequency band 2, col. 3, lines 57-63), and

Each subscriber channel comprises a respective downstream subscriber channel and a respective upstream subscriber channel, each having dedicated and unshared bandwidth (“home channel”, col. 5, lines 21-39).

McNamara fails to disclose up converting modulated forwarded source information into a corresponding one of the subscriber channels and the bandwidth allocated to each of a plurality of subscriber destinations is unshared, in the sense that only a given subscriber destination from among the plurality of subscriber destinations forwards or receives information utilizing it’s allocated unshared bandwidth and allocating broadcast television channels within a predetermined frequency range of the television broadcast spectrum, dividing the plurality of subscriber channels into a remaining portion of the television broadcast spectrum outside the predetermined frequency range allocated to the broadcast television channels, and combining the broadcast television channels into the combined signal.

In an analogous art, Binns teaches up converting modulated source information into corresponding subscriber channels (fig. 4, outputs of baseband to IF modulators 332 and 333 provide modulated source information which is then applied to IF to Downstream channel modulators 328 and 329 which up convert the modulated source information into corresponding subscriber channels, col. 17, lines 15-28), for transmitting analog source information over a cable network (fig. 3, cable distribution network).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara to include up converting modulated source information into a corresponding one of the subscriber channels, as taught by Binns, for the benefit of increased network flexibility by handling analog signals as well as digital.

McNamara and Binns fail to disclosed the bandwidth allocated to each of a plurality of subscriber destinations is unshared, in the sense that only a given subscriber destination from among the plurality of subscriber destinations forwards or receives information utilizing it's allocated unshared bandwidth and allocating broadcast television channels within a predetermined frequency range of the television broadcast spectrum, dividing the plurality of subscriber channels into a remaining portion of the television broadcast spectrum outside the predetermined frequency range allocated to the broadcast television channels, and combining the broadcast television channels into the combined signal.

In an analogous art, Darcie teaches an optical communication system (fig. 1, col. 3, lines 5-15) wherein system bandwidth is allocated to a plurality of subscribers via a plurality of channels comprising unshared bandwidth, wherein each subscriber is allocated a particular channel (col. 3, lines 16-42), providing maximum use of the available frequency spectrum while entirely avoiding contention problems for multiple users (col. 1 line 65 – col. 2 line 31).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara and Binns to include allocating unshared bandwidth to each of a plurality of subscriber destinations, wherein only a given subscriber destination from among the plurality of subscriber destinations receives information utilizing its allocated unshared bandwidth, as taught by Darcie, for the benefit of eliminating any contention problems that would otherwise arise from the use of the system by multiple users.

McNamara, Binns, and Darcie fail to disclose allocating broadcast television channels within a predetermined frequency range of the television broadcast spectrum, dividing the plurality of subscriber channels into a remaining portion of the television broadcast spectrum outside the predetermined frequency range allocated to the broadcast television channels, and combining the broadcast television channels into the combined signal.

In an analogous art, Hoarty teaches allocating broadcast television channels within a predetermined frequency range of the television broadcast spectrum (col. 6, lines 25-35 and fig. 31, broadcast spectrum portion 315),

dividing a plurality of subscriber channels [interactive/virtual channels] into a remaining portion of the television broadcast spectrum (fig. 31, broadcast spectrum portion 317) outside the predetermined frequency range allocated to the broadcast television channels (col. 17 line 66 – col. 18 line 4 and col. 18, lines 23-35), and combining the broadcast television channels into a combined signal (fig. 9, col. 9, lines 13-36), for the benefit of providing both interactive services and traditional broadcast programming such that they do not interfere with each other upon broadcast and reception (use of guardbands 318 ensure this, col. 18, lines 31-33).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, and Darcie to include allocating broadcast television channels within a predetermined frequency range of the television broadcast spectrum, dividing the plurality of subscriber channels into a remaining portion of the television broadcast spectrum outside the predetermined frequency range allocated to the broadcast television channels, and combining the broadcast television channels into the combined signal, as taught by Hoarty, for the benefit of providing both interactive information services and traditional broadcast television programming such that they do not interfere with each other upon broadcast from the point of distribution and reception at the subscriber destinations.

Regarding claim 80, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 79, and further disclose dividing the television broadcast spectrum into an upstream portion and a downstream portion (McNamara, col. 3, lines 48-56, col. 4 lines 9-21, and col. 5, lines 21-26) and allocating each subscriber destination an unshared downstream bandwidth and an unshared upstream bandwidth (McNamara, col. 5, lines 21-39).

Regarding claim 81, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 80, and further disclose each subscriber channel includes a downstream subscriber channel in the downstream portion and an upstream subscriber channel in the upstream portion (McNamara, col. 5, lines 21-39).

Regarding claim 83, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 79, and further disclose receiving source information from a plurality of content servers (McNamara, fig. 3, server nodes 46, col. 5 lines 63-67) in the form of data packets (McNamara, fig. 9, frame message 120, col. 9, lines 62-65) and the forwarding comprising forwarding the received source information based on address information within the data packets (McNamara, col. 10, lines 25-31).

Regarding claim 84, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 79, and further disclose tracking actual bandwidth usage of each

subscriber destination (by NTM 32 for billing and load leveling statistics, McNamara, col. 6 line 66 – col. 7 line 8).

Regarding claim 86, Hoarty additionally teaches allocating a substantial portion of the television broadcast spectrum for use in interactive television information signals (fig. 31, spectrum portion 317, col. 18, lines 23-33 and the band for interactive channels in fig. 10), providing services to a large number of different subscribers (col. 8, lines 40-58).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, and Hoarty to include dividing a substantial portion of the television broadcast spectrum into the plurality of subscriber channels, as taught by Hoarty, for the benefit of providing the information services to a large number of different subscriber locations.

Regarding claim 87, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 79, and further disclose receiving information in packetized format (McNamara teaches head end 10 receives all frame messages, col. 5, lines 1-12, which are in packet format, col. 9 line 62 – col. 10 line 8) and forwards the packetized information (McNamara, col. 5, lines 6-12) to a subscriber channel (McNamara, col. 5, lines 21-26, 32-39) assigned to the subscriber destination (forwarding is based address of destination which is coupled to channel frequency, McNamara, col. 7, lines 26-33 and col. 7 line 62 – col. 8 line 6), but

fail to disclose receiving a request for video information from a subscriber destination.

Hoarty additionally teaches transmitting video information to subscribers on a demand basis (col. 18, lines 36-48 and col. 8, lines 40-49), providing a wide array of video services to interested subscribers (col. 19, lines 20-47).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, and Hoarty to include receiving a request for video information from a subscriber destination, as taught by Hoarty, for the benefit of providing a wide array of video services of which are individually selectable by interested subscribers from subscriber destinations.

Regarding claim 88, Hoarty additionally teaches the video information is a broadcast television channel (col. 8, lines 25-30), conserving bandwidth or widening the selections available to subscribers (col. 8, lines 30-33).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, and Hoarty to include the video information is a broadcast television channel, as additionally taught by Hoarty, for the benefit of conserving bandwidth in the communication network or increasing the amount of material available for selection by subscribers.

Regarding claim 94, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 79, and further disclose receiving a physical address request from a subscriber destination (received by NRM 36, McNamara, col. 6, lines 56-65), retrieving the requested physical address from a stored address database (McNamara, col. 7 line 62 – col. 8 line 6) and forwarding the retrieved physical address to the requesting subscriber destination (McNamara, col. 7 line 62 – col. 8 line 6).

5. Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara, Binns, Darcie, and Hoarty as applied to claim 79 above, and in further view of Hooper et al. (5,442,390, of record) [Hooper].

Regarding claim 82, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 79, but fail to disclose subdividing at least one subscriber channel into a plurality of bandwidth increments and assigning multiple subscriber destinations to the subscriber channel, each of the multiple subscriber destinations being allocated bandwidth increments of the subscriber channel.

In an analogous art, Hooper teaches establishing fixed point-to-point bandwidths (col. 5, lines 20-23) by subdividing a channel into bandwidth increments (use of frequency division multiplexing to partition a channel into sub-channels, col. 5, lines 20-31), increasing the number of subscribers to which services are provided.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, and Darcie to include subdividing a subscriber channel into a plurality of bandwidth increments and assigning multiple subscriber destinations to the subscriber channel, each of the multiple subscriber destinations being allocated bandwidth increments of the subscriber channel, as taught by Hooper, for the benefit of increasing the number of subscriber destinations to which services can be provided over the given bandwidth portion.

6. Claim 85 is rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara, Binns, Darcie, and Hoarty as applied to claim 84 above, and in further view of Bigham et al. (5,544,161, of record) [Bigham].

Regarding claim 85, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 84, but fail to disclose monitoring source information by service type provided to a subscriber destination and tracking bandwidth usage of the subscriber destination for each service type.

In an analogous art, Bigham teaches monitoring source information by service type provided to a subscriber destination (the level 1 gateway monitors the connections between subscribers and service providers, col. 15 line 53 – col. 16 line 8 and col. 16, lines 28-34, 40-48) and tracks the bandwidth usage of each subscriber destination for each service type (the gateway monitors actual

bandwidth usage as the link is active, col. 15, lines 60-63), for the benefit of accurate billing of subscribers for services rendered.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, and Hoarty to include monitoring source information by service type provided to a subscriber destination and tracking bandwidth usage of the subscriber destination for each service type, as taught by Bigham, for the benefit of accurate billing of subscribers for information services rendered to subscriber destinations.

7. Claim 89 is rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara, Binns, Darcie, and Hoarty as applied to claim 79 above, and further in view of Paik et al. (5,136,411, of record) [Paik].

Regarding claim 89, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 79, but fail to disclose converting the combined signal into an optical signal and transmitting the optical signal on an optical plant to an optical transceiver node.

In an analogous art, Paik teaches an HFC network (fig. 1, col. 3, lines 48-56), wherein a combined electrical signal is converted to an optical signal at the head end and transmitted (combined signal from several sources is converted to an optical signal before transmission by the head end, col. 3, lines 57-67) to an optical receiver node (fig. 1, distribution terminal 12) via an optical plant (fig. 1,

optical fiber 16), wherein HFC networks are a cost efficient form of long distance signal transmission (col. 1 line 66 – col. 2 line 7).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, and Hoarty to include converting the combined signal into an optical signal, and transmitting the optical signal to an optical transceiver node via an optical plant, as taught by Paik, for the benefit of utilizing a more effective and cost efficient form of long distance signal transmission to subscriber destinations.

8. Claims 90 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara, Binns, Darcie, and Hoarty as applied to claim 79 above, and further in view of Eng (6,370,153, of record).

Regarding claim 90, McNamara, Binns, Darcie and Hoarty disclose the method of claim 79, and further disclose receiving a combined upstream signal from the communication network (McNamara, col. 4, lines 9-21), splitting the upstream signal into multiple streams of subscriber information (taught by McNamara, an inherent feature of the head end in fig. 2, as having a plurality of DCAM modules [11a, 11b, etc…] requires some form of signal splitting to couple the upstream input from the common cable 25 [fig. 3] to each DCAM module), demodulating a return RF signal into packetized subscriber information, and forwarding the packetized subscriber information (McNamara, col. 5, lines 1-12), but fails to disclose providing each stream of subscriber information to a

corresponding one of a plurality of tuners, each tuner tuned to a corresponding subscriber channel and extracting by each tuner a corresponding RF signal.

In an analogous art, Eng teaches providing separate streams of subscriber information (from diplex filter 252 in fig. 14) to a corresponding one of a plurality of tuners (tuners 258 and 259), each tuner tuned to a corresponding subscriber channel and extracting by each tuner a corresponding RF signal (col. 18, lines 45-65, each upstream channel is sent to a separate tuner, and the use of two is illustrative, as the invention contemplates using a plurality of channels which would in turn require a plurality of tuners to extract data from each, col. 11, lines 11-20), enabling flexible, frequency agile reception of upstream information (each tuner is ‘frequency agile’, col. 18, lines 45-48 and 59-61).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, and Hoarty to include providing each stream of subscriber information to a corresponding one of a plurality of tuners, each tuner tuned to a corresponding subscriber channel and extracting by each tuner a corresponding RF signal, as taught by Eng, for the benefit of flexible, frequency agile reception of subscriber information.

Regarding claim 91, Eng additionally discloses receiving an optical signal and converting the optical signal into a combined upstream signal (performed by optical receiver 38 in fig. 1, col. 11, lines 1-4), wherein utilizing fiber optics for

signal transmission is well known to have very high bandwidth and superior propagation properties.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, Hoarty and Eng to include receiving an optical signal and converting the optical signal into a combined upstream signal, as taught by Eng, for the benefit of utilizing fiber optics for signal transmission which are well known to have very high bandwidth, as compared to traditional coaxial cable, and superior propagation properties, such a lower signal loss over distance.

9. Claims 92 and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara, Binns, Darcie, and Hoarty as applied to claim 1 above, and in further view of Williams et al. (5,808,767, of record).

Regarding claim 92, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 79, but fail to disclose detecting a request by a subscriber for increased bandwidth and increasing the allocated unshared bandwidth to the subscriber destination in accordance with the increased bandwidth request.

In an analogous art, Williams teaches detecting a request by a subscriber for increased bandwidth and increasing the allocated unshared bandwidth to the subscriber destination in accordance with the increased bandwidth request (col. 11, lines 33-42), providing the user with more bandwidth to facilitate large data transfers.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method of McNamara, Binns, Darcie, and Hoarty to include detecting a request by a subscriber for increased bandwidth and increasing the allocated unshared bandwidth to the subscriber destination in accordance with the increased bandwidth request, as taught by Williams, for the benefit of facilitating large data transfers the user wishes to initiate more quickly through the allocation of additional bandwidth to the subscriber destination of the user.

Regarding claim 93, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 79, but fail to disclose detecting a request by a subscriber destination for a service that would require a greater amount of bandwidth than currently allocated to the requesting subscriber destination and increasing the allocated unshared bandwidth to the requesting subscriber destination to handle the requested service.

In an analogous art, Williams teaches detecting a request by a subscriber destination for a service (user inputs request into IID 101 for video on demand service, col. 8, lines 7-11,19-24), wherein if the service requested exceeds the traffic capacity of the assigned channel, the allocated unshared bandwidth is increased to handle the requested service (col. 17, lines 2-15), more effectively utilizing bandwidth overall through dynamic allocation of bandwidth on an on demand basis (col. 5, lines 35-40)

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, and Hoarty to include detecting a request by a subscriber destination for a service that would require a greater amount of bandwidth than currently allocated to the requesting subscriber destination and increasing the allocated unshared bandwidth to the requesting subscriber destination to handle the requested service, as taught by Williams, for the benefit of more effectively utilizing bandwidth of the communication network through dynamic allocation of bandwidth to subscriber destinations on an on demand basis.

10. Claim 95 is rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara, Binns, Darcie, and Hoarty as applied to claim 79 above, and in further view of Perlman (5,420,862, of record).

Regarding claim 95, McNamara, Binns, Darcie, and Hoarty disclose the method of claim 94, but fail to disclose forwarding a broadcast address resolution protocol request in an attempt to locate a device having the requested physical address if the requested physical address is not found.

In an analogous art, Perlman teaches using Address Resolution Protocol (ARP) messages to ‘learn’ the physical address of a desired receiving station (col. 4, lines 41-60) in the event that the physical address is not known, but desired, maintaining point to point functionality in the event the database is incomplete, maintaining the desired point-to-point connections.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, and Hoarty to forward a broadcast address resolution request in an attempt to locate a desired device's physical address, as taught by Perlman, for the benefit of preserving the point-to-point integrity of the method.

11. Claim 96 is rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara, Binns, Darcie, Hoarty, and Perlman as applied to claim 95 above, and further in view of Denker (5,958,053, of record).

Regarding claim 96, McNamara, Binns, Darcie, Hoarty, and Perlman disclose the method of claim 95, but fail to disclose detecting and halting abuse of address requests by a subscriber device.

In an analogous art, Denker teaches tracking the activity of clients from a server, wherein excessive connection attempts result in blocking a client from further attempts to prevent abuse of the system (col. 11, lines 25-50), for the benefit of maintaining the integrity of the server.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by McNamara, Binns, Darcie, Hoarty, and Perlman to include detecting and halting abuse by subscriber devices, as taught by Denker, for the benefit of maintaining the integrity of the information distribution method.

Conclusion

12. This is a Request for Continued Examination. All claims are drawn to the same invention claimed and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOMINIC D. SALTARELLI whose telephone number is (571)272-7302. The examiner can normally be reached on Monday - Friday 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dominic D Saltarelli/
Examiner, Art Unit 2421